

## Claims:

1. A resin-coated steel plate obtained by providing, on at least one surface of the steel plate,  
5 (i-1) an alloy layer of iron and at least one metal selected from tin, zinc and nickel or (i-2) a tin-plated layer containing tin in an amount of not smaller than  $0.5 \text{ g/m}^2$ , (ii) a silane coupling agent-treated layer, and (iii) a thermoplastic polyester resin layer  
10 in this order from the side of the steel plate.
2. A resin-coated steel plate according to claim 1, wherein when the alloy layer contains tin, the content of tin is in a range of larger than  $0.05 \text{ g/m}^2$  but is smaller than  $1.5 \text{ g/m}^2$ , and when the alloy layer  
15 contains zinc or nickel, the content of zinc or nickel is larger than  $0.03 \text{ g/m}^2$  but is smaller than  $1.8 \text{ g/m}^2$ .
3. A resin-coated steel plate according to claim 1, wherein part of the tin-plated layer on the side of the steel plate is a tin-iron alloy layer.
- 20 4. A resin-coated steel plate according to claim 1, wherein the amount of Si in the silane coupling agent-treated layer is in a range of 0.8 to  $18 \text{ mg/m}^2$ .
5. A resin-coated steel plate according to claim 1, wherein the silane coupling agent-treated layer is a  
25 layer formed by the treatment by using an amino group-containing silane solution and/or an epoxy group-containing silane coupling agent solution.
6. A resin-coated steel plate according to claim 1, wherein the silane coupling agent-treated layer is a  
30 layer formed by the treatment by using a mixed solution of a silane coupling agent containing an amino group and/or an epoxy group and a silane containing an organic substituent and a hydrolyzing alkoxyl group.
7. A resin-coated steel plate according to claim  
35 1, wherein the silane coupling agent-treated layer is a

layer treated with a silane containing an organic substituent and a hydrolyzing alkoxyl group and is, then, treated with a silane coupling agent solution comprising an amino group-containing silane solution and/or an epoxy group-containing silane solution.

8. A resin-coated steel plate according to claim 1, wherein the thermoplastic polyester resin layer has a thickness of 8 to 42  $\mu\text{m}$ .

9. A resin-coated steel plate according to claim 1, wherein the thermoplastic polyester resin layer is a copolymerized resin layer of a polyethylene terephthalate.

10. A resin-coated steel plate according to claim 1, wherein the thermoplastic polyester resin layer is a polyethylene terephthalate/isophthalate copolymerized resin layer.

11. A resin-coated steel plate according to claim 1, wherein the thermoplastic polyester resin layer contains an ionomer resin.

12. A can obtained by press-molding a resin-coated steel plate of claim 1.